### Internet Society

## Network Services Request for Proposal For IETF Meetings

#### 1. Purpose

The Internet Society and the IETF Administrative Oversight Committee (IAOC) are seeking a vendor to perform network services for Internet Engineering Task Force (IETF) meetings and Large Interim Meetings, if and when held, beginning in 2009 for a three (3) year period, with an opportunity for two (2) one year extensions. Generally, the services would include: performing a pre-meeting site survey; developing a detailed network design; installing all equipment; conducting tests; and providing operations, systems management; user support functions during the meeting; and storage of IETF equipment. This is an indefinite delivery, indefinite quantity (IDIQ) contract.

#### 2. Background

The Internet Society is the organizational home of the IETF. The IAOC provides oversight over the administrative processes of the IETF through the IETF Administrative Director (IAD).

The IETF conducts three, one-week meetings a year throughout the world. Attendance is in the range of 1,100 to 1,300 per meeting. These meetings are in furtherance of the IETF's mission of standards development for the Internet. Attendees include engineers, computer scientists, and academicians who are always connected with one or more devices. The meetings are typically conducted in March, July and November. Meeting venues include hotels with conference space (the preference), as well as standalone conference centers. Meeting space requirements are typically 40,000 square feet, comprised of 8 meeting rooms holding between 100 - 500 people; one Plenary room holding 1,000 people; a 120 seat terminal room; 5 offices; and a registration area.

The IETF meetings run Monday through Friday from 9:00 AM to 8:00 PM, except Friday when the last session typically ends before 5:00 PM. The Sunday schedule has the IETF leadership meeting from 9:00 AM, registration opening at Noon, and multiple education sessions scheduled for 1:00 to 5:00 PM. There is a Welcome Reception Sunday evening, but network services are not required for that location. Typically throughout the week there are eight simultaneous meeting sessions at any given time. The Plenary sessions are historically conducted on Wednesday and Thursday evenings, but the IETF leadership is experimenting with other schedules. 750 or more people generally attend plenary sessions. Network services are required in certain areas throughout the preceding Sunday and the Friday afternoon, with exact details varying from site to site. Some meetings require network services in one or two rooms on the preceding Saturday.

The IETF is experimenting with Large Interim Meetings beginning in 2009. If shown to be successful, Large Interim Meetings will likely be held twice per year. These are expected to be three-day meetings with four simultaneous sessions and an anticipated attendance of 300 - 500 people.

Generally, the wireless network must service all meeting rooms, terminal room, offices, the registration area, and public spaces. Limited wired services are required in the meeting rooms and registration area, however the terminal room requires upwards of 150 drops. Audio streaming and Jabber conference rooms are provided in addition to the wired and wireless network services for the meeting.

Connecting the IETF meeting to the Internet is done through a pair of redundant circuits. These circuits historically consist of a high speed primary link and a lower speed backup link. These links are generally brought in specifically for the event, though existing venue links can sometimes be utilized for backup purposes. The circuits are often donated from ISPs and PTTs that are friendly with the IETF, but must be ordered and purchased if no donations can be arranged.

The IETF maintains a team of volunteer network engineers and architects, drawn from within the ranks of IETF attendees. This team has been involved in every IETF event network for many years, and provides site-selection and other technical guidance to the IAD and IAOC. The vendor is encouraged to take advantage of the experience of this team in overall design, and their specific understanding of the needs of the IETF community.

## 3. Requirements

3.1 Required Network Services

See Exhibit A Statement of Work for a description of the services that are to be performed prior to the meeting, during the meeting, after the meeting. In addition, VENDOR shall provide storage for equipment between meetings.

### 3.2 Network Equipment

a. The IETF has equipment available to be used by the vendor. See Exhibit B Equipment List

b. Vendor is to provide all other networking equipment including network servers, routers, switches, access points, and cabling, and any equipment required by its staff in fulfilling the requirements of this contract.

c. Vendor is to store the IETF equipment at its facilities.

### 4. Performance

Performance goals of the network are support of up to 2000 simultaneous connected devices with connectivity availability of at least 99% during the hours when session meetings are in progress. Network links must all be sized to meet or exceed the bandwidth demands of the users, within the constraints of available technology. VENDOR shall provide sufficient performance monitor data to prove that adequate performance is being delivered during the required operational periods.

## 5. Experience

VENDOR must have successful experience designing, provisioning and managing rapid deployment wired and wireless networks for technical organizations of similar size and needs. It is important that the VENDOR has successfully demonstrated the ability to support and manage simultaneous connections for more than 1600 network devices. References are required.

### 6. Additional Information

Proposals shall include information on staffing requirements and options, as well as a detailed explanation of the basis for computing the charges for a session. Reasonable and appropriate travel and shipping expenses for VENDOR for each meeting and for presession on-site inspections will be reimbursed based on VENDOR submission of an expense report and appropriate receipts to document the expenses. Economy air travel is considered "reasonable".

## 7. Possible Meetings to be Covered by Agreement

This is an indefinite delivery, indefinite quantity (IDIQ) contract. While the IETF has a meeting schedule through 2013 (see <u>http://www.ietf.org/meetings/0mtg-sites.txt</u>), it is uncertain which of these meetings will require vendor performance as the IETF permits Host companies to perform or arrange for network services for IETF Meetings. Likewise there is uncertainty with regard to providing similar services for the Large Interim Meetings, which is is being held for the first time in January 2009. Should a decision be taken to contract for the network services for the IETF meetings, it may include:

a. IETF 74 at the Hilton San Francisco, March 22 – 27, 2009;

b. IETF 75 at the Convention Centre Stockholm, Stockholm Sweden July 26 - 31, 2009; and

c. Large Interim Meeting, at an undecided location in North America, at dates in 2009 that have not yet been chosen.

Meetings could be added to this Master Agreement from time to time by a mutually signed Supplemental Agreement.

8. Materials to be Submitted in Response to this RFP

The following materials should be submitted in this order:

a. Identity of responsible point of contact with full address, phone, fax, & email.

b. A statement of introduction for the organization providing a recent history of business activities and a statement highlighting relevant expertise and experiences that would qualify the organization to perform this job.

c. A resume of any prior experiences that demonstrate the ability to perform this job.

d. An explanation of organization experience with high speed (i.e. >10 Mb/s) carrier interfacing and provisioning of temporary facilities at hotels or convention centers, including experiences outside of North America.

e. A formulaic quotation indicating the basis of the charges for services, and the metrics to be used to compute the charges for supporting a single IETF meeting and a single Large Interim Meeting.

f. Provide quotations for IETF 74, IETF 75 and one Large Interim Meeting in North America. TBD pricing is strongly discouraged. (See sample agendas for past meetings in the Proceedings directory: <u>http://www.ietf.org/proceedings\_directory.html</u>.)

g. Provide an example of a pre-conference site survey report.

h. Provide an example of a mid-session network report, including AP deployment locations, network loading, and monitoring data.

i. Provide detailed and specific information addressing each requirement in Exhibit A, Statement of Work.

j. Provide a List of References for current or prior customers who are willing to be interviewed about their experiences with the organization as a Network Service provider or related service activities.

k. Provide a List of potential staff and <u>the</u> technical point of contact for the event to be used for on-site support functions with a short statement of their technical background and experiences, and their relevant history with the organization.

l. Discuss how you would involve IETF Volunteers in the design, deployment, and operation of network services.

m. Discuss how you will interface with the venue and connectivity providers.

n. Any other materials that will help to demonstrate the organization's technical qualifications and customer-service orientation for this job.

- o. Describe in detail any exceptions between your proposal and this RFP.
- 9. Expected Timeline to Contract Award

The following timeline may lead to contract award:

- a. RFP Issued by email: October 30, 2008.
- b. RFP Response by email due no later than 5 PM ET on November 24, 2008.
- c. Response Review Period: November 25, 2008 to December 12, 2008.
- d. Notification of selection: December 19, 2008
- e. Contract Negotiation and Agreement: January 2, 2009 to January 19, 2009.
- f. Contract Signed and Accepted: January 23, 2009.
- g. Contract Commencement: February 1, 2009.

Questions regarding this RFP may be submitted via email to the IAD, iad@ietf.org, and technical matters may be passed onto subject experts for response. Telephone conferences, when necessary to discuss logistical matters or technical matters, will be scheduled in advance via email.

Bidder's contact person(s) should be available for emails or telephone appointments scheduled by email to handle questions and/or clarifications of response materials at any time during the review period. Failure to provide timely responses may result in disqualification.

## EXHIBIT A

## STATEMENT OF WORK

- 1. VENDOR shall perform the following services prior to the contracted meeting:
  - a. Conduct a technical survey of the meeting site and provide a comprehensive pre-meeting site survey report including external connectivity options, status of installed cable plant, and any potential issues identified during the survey.
  - b. Design a network configuration for the meeting site including both internal network layout and the external connections to the Internet in accordance with the technical requirements specified in the meeting network requirements document (available at <u>http://iaoc.ietf.org/network\_requirements.html</u>).
  - c. Provide the IAD or his/her designated representatives with detailed documentation of the proposed network design and layout including topology diagrams and configuration information forty-five (45) days prior to the start of the contracted meeting.
  - d. Update the planned network design based on reviews or feedback received from the IETF. This feedback may be either a written analysis of the submitted network design or informal technical discussions. Promptly provide the updated design documentation to the IAD or his/her designated representatives.
  - e. Provide the IAD with a detailed Network Services Budget based on the final design including estimates of all costs and expenses within 5 business days of the submission of the final design.
  - f. Work with the hotel(s) to formulate plans to mitigate the impact of IETF attendees on the hotel room network if necessary and appropriate.
  - g. Participate in weekly event planning status meetings beginning 12 weeks prior ro the commencement of the meeting, and participate in an evaluation meeting on site at the conclusion of the meeting or within one week thereafter by phone.
  - h. Work with the IAD to pursue potential Internet connectivity donations. If donations are not possible, circuit options must be determined, and in cooperation with the IAD be ordered.
- 2. VENDOR shall perform the following services during each contracted meeting:

a. Install a wired and wireless attendee network for the contracted meeting in accordance with the requirements specified in the meeting network requirements document (available at <u>http://iaoc.ietf.org/network\_requirements.html</u>).

- b. Complete the installation of the network one day prior to the start of the contracted meeting (with the exception of spaces that are not accessible in advance). The meeting network includes:
  - Eight or more meeting rooms for simultaneous sessions configured for 100 – 500 attendees with wireless coverage for all participants and wired Ethernet connections for two working group chairs, one scribe, one secretary, and the streaming audio service for that meeting room.
  - Wireless coverage for public areas that are expected to become common gathering spaces.
  - Wireless or wired coverage in IETF offices, small meeting spaces, the IETF registration desk, and other areas as agreed in the approved network design.
  - Wired Ethernet connectivity and printing services in a centralized or distributed terminal room.
- c. Work with Internet connection provider to resolve any external connection problems. Verify contracted bandwidth capacity and proper operation of Internet Service Provider (ISP) connection with simulated load testing on the Saturday before the start of the contracted meeting.
- d. Install and operate onsite Network Operations Center (NOC) and server facility. Services in this facility include, but are not limited to, DHCPv4, DHCPv6, DNS, NTP, and printer support with IPP, LPR, and Windows printing.
- e. Install and operate audio streaming services for all regularly scheduled meeting sessions, including Plenary sessions. (See <a href="http://www.ietf.org/internet-drafts/draft-jaeggli-ietf-streaming-media-status-00.txt">http://www.ietf.org/internet-drafts/draft-jaeggli-ietf-streaming-media-status-00.txt</a> and any subsequent updates.)
- f. Assist in the installation of additional equipment provided by the IETF or an agent of IETF as part of the meeting infrastructure (web servers for IETF meeting support, audio servers, etc.).
- g. Provide real-time network management and monitoring tools accessible to the IAD or his/her designated representatives including SNMP read access to all network devices.

- h. Monitor and maintain the attendee network for the full duration of the meeting. Provide a network support team available 24/7. This support can be on a 15-minute call back basis between the hours of 8:00 PM and 8:00 AM.
- i. Monitor the network for security issues and deploy tools to limit the impact of unintentional or malicious behavior.
- j. Ensure that the network does not prohibit end-to-end and external connectivity for any traffic (e.g., no limiting firewalls or NATs).
- k. Provide a user trouble ticket system to track attendee network issues. This trouble ticket system shall be accessible to help desk staff, NOC staff, and designated IAOC representatives if requested.
- Staff and maintain a User Help Desk between the hours of 8:00 AM and 8:00 PM. This help desk shall provide IS support services for IETF members including support with configuration of the attendee's computer to connect to the wireless and wired networks, Internet access, and printing services.
- m. Provide IETF with a mid-session network report including AP deployment locations, network loading, and monitoring data. Provide daily status reports if requested.
- n. Provide visibility into the state of the network for attendees (e.g., public graphs of network utilization, number of wireless associations, etc.).
- o. Provide sufficient performance monitoring data for proof that adequate performance is being delivered during required operational periods. The performance goals of the network are support of up to 2000 simultaneous connected devices with connectivity availability of at least 99% during the hours when session meetings are in progress.
- Remove the network at the conclusion of the meeting commencing no earlier than 60 minutes after the last regularly scheduled meeting has adjourned. Return the meeting facility to a satisfactory pre-meeting state.
- q. Work with IETF Volunteers as directed in the accomplishment of the foregoing.
- 3. VENDOR shall perform the following services after each contracted meeting:

a. Provide a detailed network utilization report and any lessons learned within two weeks of the meeting. This data will be used for planning future meeting network requirements.

- 4. Year-Round Activities:
  - a. VENDOR shall store the equipment, and ship it as requested.

# EXHIBIT B

## EQUIPMENT LIST

75 Cisco 1252 a/g/n APs

Antennas for the 1252's

63 Cisco 1131 a/g APs

5 Cisco 3560G 24-port switches

8 Cisco 3560E 24-port switches

2 Cisco 3750G 24-port switches

4 Cisco 3750G 48-port switches

10 Cisco 3560G-PC8 8-port switches

16 GBICs - SX

12 SFPs - SX

2 SFPs - LH